

**Study To Assess Socio-Economic And Demographic factors along with
Knowledge, Attitude, and Practices among Mothers of Dungarpur district of
Rajasthan related to IYCF Practices.**

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By

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Under the Supervision and Guidance of

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CERTIFICATE BY MENTOR

This is to certify that dissertation titled “ Study to assess the socio-economic and demographic factors along with knowledge, attitude, and practice among mothers of Dungarpur district of Rajasthan related to IYCF practices” is a record of the research work undertaken by Dr. Thakur Yuvraj Singh in partial fulfilment of the requirements for the award of the degree of MBA- Hospital and Health Management from the IIHMR University, Jaipur under my guidance and supervision and his approach to the research study has been sincere, scientific, and analytical.

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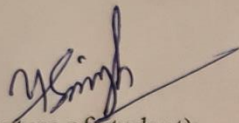
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CERTIFICATE BY SCHOLAR

This is to certify that this dissertation titled “ **Study to assess the socio-economic and demographic factors and knowledge, attitude, and practices among mothers of Dungarpur district of Rajasthan related to IYCF practices**” is the bonafide record of my original research work. I declare that this work has not been submitted to any other university or institution for the award of any degree or diploma. Information derived from the published or unpublished work of others has been duly acknowledged in the text.


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Dr. Thakur Yuvraj Singh

ABSTRACT

Study To Assess Socio-Economic And Demographic factors along with Knowledge, Attitude, and Practices among Mothers of Dungarpur district of Rajasthan related to IYCF Practices.

By- Dr. Thakur Yuvraj Singh.

Advisor- Dr. Goutam Sadhu.

Keywords: Knowledge, attitude, and practice, Feeding practices, complementary feeding, exclusive breastfeeding.

Background- The health and survival of children depend on maternal and child nutrition. For a baby or child's health, nutrition, survival, and development, appropriate feeding techniques are crucial. Both the mother and the kid depend on proper maternal nutrition. It establishes the essential framework for the effective end result of nursing and pregnancy. Interventions should be made to enhance the mother's nutritional health that begin far before conception. Nutritional deficiencies have been linked to increased risk of Low birth weight (LBW), early delivery, and intrauterine growth retardation (IUGR) disorders that accounts for a majority of infant and child fatalities. The crucial time period for enhancing children's nutrition is throughout the first 24 months of life and during pregnancy. Improving children's nutritional status is crucial. Improving children's nutritional status is crucial as it has a negative influence on the child's growth and cognitive development and also affects the children's productivity. Extreme care should be taken to ensure that the food contains the necessary calorific content. Initially, females should provide their children with the recommended nourishment by exclusively breastfeeding them for six months. After six months of age the children should be given other liquid, semi-solid, and solid diet in the recommended quantity and frequency to ensure that the children consumes enough nutritious food for its growth and development.

Objectives: To identify socio-economic and demographic variables affecting the existing IYCF practices along with the knowledge, attitude, and practices of mothers of children's below 2 years of age in Dungarpur district of Rajasthan.

Materials and methods- CCM round 3 study was conducted by IPE global in the district of Dungarpur to assess the ongoing program implementation status. Mothers of children's below the age of 2 years were selected and face-to-face interview was conducted based on structured questionnaire and their responses were recorded. A sample size of 1250 females were selected randomly to conduct the survey.

Result- The major findings of this study revealed that only 27% of the females in Dungarpur district have got education above secondary level whereas 12% of them are illiterate. The age at marriage less than 18 years was recorded in 51% of the females whereas 37% females had early pregnancy in age less than 18 years. 54% of the females are housewife and are dependent on their husband or other family members income, whereas the average monthly income of a household from all sources was only between 10 to 20,000 Rs.

Regarding the result of knowledge, attitude, and practices towards Infant and Child feeding, 94% of the children born were healthy babies with an average weight ranging between 3 to 4kg. Around 95% females breastfed their child within the 1st hour of birth with colostrum or first milk. 80% females are aware of the ideal duration for exclusive breastfeeding whereas only 63% females are aware of the ideal age for initiation of complementary feeding. 80% females knew about the recommended frequency of Complementary feeding whereas 77% females reported that they know the disadvantages of formula feeding. 81% females maintained personal and hand hygiene practices and cleaned the utensils before feeding their children.

Conclusion-

According to the study, Dungarpur's current IYCF methods need to be improved, and the emphasis should be placed more on exclusive breastfeeding and complementary feeding. According to this study, the majority of new-borns and young children meet the minimum food frequency criteria, but due to age-inappropriate supplemental feeding methods, they fall short of the minimum food diversity needs. Only 60% of moms of new-borns are aware of the proper month to begin supplemental feedings other than breastmilk and the timing of complementary feeding commencement. With the use of efficient communication, education, and counselling, this study aims to prioritise solutions based on the improper supplemental feeding habits that are brought to light.

ABBREVIATIONS

<u>Abbreviations</u>	<u>Full Form</u>
ANM	Auxiliary Nurse Midwife
AWW	Aganwadi Workers
AWC	Aganwadi Centre
BCC	Behaviour Change Communication
CF	Complementary feeding
EBF	Exclusive Breastfeeding
FAO	Food and Agriculture Organization
FLW	Front-line workers
HMIS	Health Management Information System
ICDS	Integrated Child Development Scheme
IGMPY	Indira Gandhi Matritva Poshan Yojana
LBW	Low Birth Weight
LM	Lactating Mother
LS	Lady Supervisor
LMP	Last Missing Period
MIL	Mother-in-Law
MCHN	Maternal Child Health and Nutrition
NFHS	National Family Health Survey

NIC	National Information Centre
PMMVY	Pradhan Mantri Matru Vandana Yojana
PCTS	Pregnancy, Child Tracking and Health Services Management System
PC	Poshan Champions
RCH	Reproductive & Child Health
RMNCH+A	Reproductive, Maternal, New born, Child and Adolescent Health
SAM	Severe Acute Malnutrition
SNP	Supplementary Nutrition Program
SPSS	Statistical Package for Social Sciences
THR	Take home Ration
UNICEF	United Nations Children's Fund
UNFPA	United Nations Population Fund
VHND	Village Health and Nutrition Day
VHSNC	Village Health Sanitation and Nutrition Committee
WHO	World Health Organization

TABLE OF CONTENT

Sr. No.	Description	Page No.
1	Cover Page	1
2	Certificate by Mentor	2
3	Certificate by organization	3
4	Declaration by student	4
5	Acknowledgment	5
6	Abstract	6-7
7	Abbreviations	8-9
8	Table of content	10
9	Index	11

INDEX

Chapter No.	Chapter	Page No.
1	Introduction to Project on IYCF practices 1.1 Background 1.2 Problem Statement 1.3 Rationale 1.4 Literature review	14 14 15 15 16-18
2	Research Methodology 2.1 Research Question 2.2 Research Objective 2.3 Methodology	19-20 19 19 20
3	Analysis and Result	21-40
4	Conclusion	41
5	Gap Identification	42
6	Recommendations	43
7	References	44

LIST OF TABLES

Sr.No.	Table Name	Page No.
1.	Analysis Of Socio-Economic And Demographic Characteristics of the Respondents.	21-22
2.	Religion-wise distribution of Respondents	24
3.	Caste-wise distribution of Respondents	25
4.	Education level of Mother	26
5.	Analysis of knowledge, attitude, and practice of exclusive breastfeeding and complementary feeding.	30,31,32

LIST OF FIGURES

Sr.No.	Particulars	Page No.
1.	Total no. of living children to a female	23
2.	Religion-wise distribution of respondents	24
3.	Caste-wise distribution of respondents	25
4.	Distribution of mothers education level	26
5.	Age at marriage of respondent	27
6.	Age at 1 st child birth of respondents	27
7.	Current status of marriage	28
8.	Economic dependence of mother	28
9	Monthly Income of family from all sources	29
10.	Birth weight of the child	33
11.	Initiation of breastfeeding	34
12.	Feeding the colostrum/1 st milk to the child	34
13.	Gave anything other than breastmilk to the child after birth	35
14.	Duration of exclusive breastfeeding	35
15.	Age to introduce complementary feeding	36
16.	Other liquid feed given after delivery to the child	36
17.	Frequency of complementary feeding	37
18.	Age to start giving water to child	37
19.	Understanding about disadvantages of formula feeding	38
20.	Understanding about complementary feeding	38
21.	Difficulties faced while feeding the child	39
22.	Maintaining hygiene while feeding the child	40

INFANT AND YOUNG CHILD FEEDING PROJECT

BACKGROUND-

Optimal feeding methods for infants and young children are essential for their nutritional status, growth, development, health, and ultimately survival. More than 1.7 million children [WHO Factsheet] under the age of five still die each year as a result of inadequate breastfeeding worldwide. Nearly 8% of these deaths can be avoided by timely initiation of supplemental feeding and 6-month breastfeeding exclusivity. Nearly one-fifth of all under-5 mortality might be avoided, according to estimates, if a package of interventions to protect, promote, and support the best IYCF practises is provided to 90% of new-borns. Numerous children continue to be susceptible to permanent effects of stunting, delayed cognitive development, and significantly increased risk of infectious illnesses such as diarrhoea and pneumonia.

Regarding infant nutrition and health in India, the practise of giving supplementary meals early or late, as well as how frequently, in what variety, and in what quantity, is a big problem. After reaching the age of six months, a new-born needs more calories, protein, and micronutrients like iron, zinc, and vitamins than what can be obtained through breastmilk alone. Adding these nutrients via the introduction of semi-solid and solid meals, combined with ongoing nursing, constitutes good complementary feeding. If the energy gap filled by breastfeeding after six months is not filled, the child's growth ceases or is slowed, which causes malnutrition. These nutritional deficiencies must be filled by complementary meals in order for the baby's growth and development to proceed as normally as possible and to prevent malnutrition.

Some societies lack a basic understanding of complementary feeding, which results in poor supplementary feeding practises in terms of quantity, quality, and timing of introduction. It is important to provide individuals with accurate and fair information, make professional "one-on-one" counselling available, and offer support to all women in order to encourage the best complementary feeding practises. It has been clearly demonstrated that complementary foods and nutrition-related education and counselling for moms have a major influence on children's growth. To guarantee adequate timely and suitable supplemental feeding after six months combined with sustained breastfeeding, food would need to be provided to "food poor" groups. Numerous research points to sociocultural and traditional practises that have an impact on the introduction of supplementary feeding and early introduction techniques.

PROBLEM STATEMENT-

- With a global burden of 148 million children [WHO Factsheet 2021] under the age of 5 years stunted, 46 million wasted and 38.6 million [WHO Factsheet 2021] overweight or obese, malnutrition still accounts for more than 44% [WHO Factsheet 2021] of Under 5 mortality throughout the world. This is a serious and alarming issue throughout the world that can be averted by timely initiation of breastfeeding, timely introduction of complementary feeding, changing the community behaviour by educating and counselling them and by adopting proper Infant and young child feeding practices. Under-nutrition have severe ill-impacts on the growth, development, health and survival of the children in long run and this also effects the productivity and earning capabilities of a country and increasing the dependent population.

RATIONALE-

With an Infant Mortality Rate of 35.2 per 1000 live births and Under-5 mortality rate of 41.9 per 1000 live births India still faces a major challenge in controlling these death parameters. In India still only 41.8% children's are breastfeed within one hour of their birth and only 63.8% children are exclusively breastfeed for 6 months. Only 11.6% children of age 6 to 23 months are adequately fed in India and 35.5% children are stunted (low height for age), 19.4% children are wasted (low weight for height), 32.3% children are underweight and 7.8% children's are severely wasted [Stats according to NFHS-5 Data].

Rajasthan being the largest state in India in terms of geographical area and very much scattered and tribal population still lacks the basic education and counselling related to Infant and young child feeding practices and this poses as a major problem in controlling the Infant and Under-5 mortality. The Infant mortality rate of Rajasthan is 30.3 per 1000 live births and Under-5 mortality is 37.6 per 1000 live births. Only 40.7% of the children's born was breastfeed within 1 hour of delivery and 70.4% children were breastfeed exclusively for 6 months. Only 8.3% children's aged 6 to 23 months were properly fed with adequate diet and 31.8% children are stunted, 16.8% are wasted, 27.6% are underweight and 7.6% are severely wasted [data source- NFHS 5 factsheet for Rajasthan].

There is a need to identify the various socio-economic and other factors such as lack of education, improper counselling by Front-line Workers, improper implementation of various government programs and other factors that are contributing in improper Infant and young child feeding.

LITERATURE REVIEW-

- The top 15 preventive child survival measures for avoiding under-five mortality were ranked in the historic 2003 Lancet Child Survival Series. The best practises were classified as exclusive nursing up to 6 months of age and breastfeeding up to 12 months, with supplemental feeding beginning at 6 months ranking third. According to estimates, these two measures would be able to stop about one-fifth of under-five mortality in underdeveloped nations. The importance of ideal IYCF on child survival was further emphasised in the 2008 Lancet Nutrition series. According to estimates, optimal IYCF, particularly exclusive breastfeeding, might possibly stop 1.5 million deaths among children under the age of five each year (out of approximately 12 million annual deaths). The nutrition series states that undernutrition, which is mostly attributed to insufficient breastfeeding and supplemental feeding, accounts for more than one-third of under-five mortality. Breastfeeding, particularly 6 months of exclusive breastfeeding, significantly lowers mortality from the two leading causes of new-born fatalities, pneumonia and diarrhoea, as well as overall mortality. Some of the variables affecting a child's future growth include low birth weight and low birth height. The mother's prenatal and postpartum nutritional state affects the child's intrauterine growth. Poor nutrition during pregnancy (particularly low BMI and anaemia) is one of the main causes of intrauterine growth restriction and preterm birth in women.
- 16 papers were reviewed in a research by Zohra S. Lassi, Jai K. Das, Guleshehwar Zahid Aamer Imdad, and Zulfiqar A. Bhutta titled "Impact of education and availability of supplemental feeding on growth and morbidity in children less than 2 years of age in poor countries." Nine of these trials offered complementary feeding education, six offered complementary feeding (with or without education), and one offered both as independent interventions. Overall CF education alone substantially reduced the rates of stunting, enhanced HAZ (SMD:0.25; 95% CI: 0.08,0.38), and WAZ (SMD:0.18, 95% CI:0.09,0.28) (RR 0.73; 95 percent CI. 0.59, 0.92). While weight gain and increased height had no discernible effects. Ten trials from a food secure community were analysed in subgroups, and the results showed that education about CF significantly affected weight increase, HAZ score, and height gain, but had no significant effect on stunting. In a group that experienced food insecurity, CF education alone considerably increased HAZ and WAZ scores and dramatically decreased stunting rates, whereas CF provision with or without education also

significantly raised HAZ and WAZ scores. It was determined that complementary feeding strategies might enhance children's nutritional status in underdeveloped nations.

- The World Health Organization's Department of Nutrition for Health and Development and Department of Child and Adolescent Health and Development conducted a study titled "The optimum duration of exclusive breastfeeding- A systemic review by Michael S. Kramer, MD, Ritsuko Kakuma, MSc" with the aim of comparing the effects of exclusive breastfeeding for 6 months vs. exclusive breastfeeding for 3 to 4 months on a child's health, growth, and development as well as on maternal health. The literature search turned up sixteen independent studies that met the criteria: 7 from poor and under-developed nations (2 of which were controlled trials in Honduras), and 9 from developed countries (all of them being observation studies). No growth deficiencies have been shown in infants from either developing or developed countries who are exclusively breastfed for 6 months. Infants who were exclusively breastfed for 6 months experience less morbidity from gastro-intestinal infections than infants who were breastfed in a mixed manner for 3 to 4 months. In both developing and wealthy nations, the available research shows that there are no obvious dangers associated with advocating exclusive breastfeeding for the first six months of life as public health policy.
- According to a study on the factors influencing exclusive breastfeeding in rural South India, less than half of the women in the samples reported doing so exclusively during the first six months in rural Karnataka, India, compared to the national average. The effectiveness of antenatal education in promoting breastfeeding outcomes should be assessed in future programmes. The number of prenatal care visits was the only variable that could be changed. Every prenatal appointment should place a strong emphasis on breastfeeding instruction so that moms who have had fewer antenatal visits may still learn the best practises and advantages of nursing. (Holly Nishimura, Savitha Gowda, Karl Krupp, Vijaya Srinivas, Anjali Arun and Purnima Madhivanan).
- Worldwide, child fatalities accounted for 45% of all deaths, with an estimated 3.1% of those deaths attributed to malnutrition, inadequate breastfeeding, and delayed cognitive growth. According to a survey from the Food and Agriculture Organization, children's nutritional status improves the most between the ages of six months and two years, and it also declines throughout this time. The reduction in nutritional status can be linked to

factors such as inadequate information, improper resource usage, a shortage of nutrient-rich foods, and a lack of food and water storage. Food that is kept in the storage area becomes contaminated as a result of this. The staff nurse is the greatest person to encourage moms to breastfeed because she can inspire them and approximately in 58 percent of the cases it was found that staff nurses actually influenced the decision of the mothers. (Report by Union of Myanmar- A KAP study on IYCF practices- 2014).

- Only 29% of mothers in Bihar began breastfeeding within 24 hours, according to a study on the knowledge, attitude, and practises of mothers regarding breastfeeding by Yadav R.J. and Singh P (2004-07-2004-09), and about one-third of mothers discontinued feeding the colostrum on the advice of their elders who believed it was bad for the health of the newborns. Studies regularly show that public health initiatives to increase breastfeeding are crucial for a child's survival since breastmilk cannot be produced artificially. The greatest possible start in life for young children is ensured by using the finest IYCF practises, particularly early initiation and exclusive breastfeeding for the first six months of life. Breastfeeding is the child's natural method of caring and building a robust body.
- In a research by Kumari.V and Sharma. A. (2018) on breastfeeding knowledge, attitude, and behaviours among post-natal moms in the Patna district, it was found that while the majority of the mothers knew the value of colostrum feeding, they were not really doing it. Unwanted cultural customs included pre-lacteal feeding, early or delayed nursing after delivery, discarding colostrum, delaying the introduction of weaning foods, and refraining from exclusive breastfeeding.

Research Question-

- What are the socio-economic and demographic factors leading to poor breastfeeding and complementary feeding practices in females of Dungarpur district of Rajasthan?
- What is the knowledge, attitude, and practice of breastfeeding and complementary feeding in females of Dungarpur district of Rajasthan?

Research Objectives-

1. To identify different socio-economic and demographic factors impacting breastfeeding and complementary feeding practices in females of Dungarpur district of Rajasthan.
2. To identify the existing practices of breastfeeding and complementary feeding in females of Dungarpur district of Rajasthan.
3. To identify the knowledge level and attitude associated with breastfeeding and complementary feeding in females of Dungarpur district of Rajasthan.
4. To make recommendations based on the finding to improve the breastfeeding and complementary feeding practices.

Materials and Methods-

Study Design- Descriptive Cross-sectional study.

- **Exposure variable-** Breastfeeding and complementary feeding.
- **Outcome variable-** Affected or not by different socio-economic and demographic factors and also by knowledge, attitude and practice of feeding mothers.

Study Duration- April 2022 to May 2022 (1months).

Study Area- Dungarpur district of Rajasthan.

Sample Size- 1250 mothers of children's aged 0 to 23 months [95% CI, 0.05% Degree of Error]

Study Population-

- **Inclusion Criteria-** All married females of Dungarpur district whose last children age is less than or equal to 2 years.
- **Exclusion Criteria-** All unmarried females, married females having no child, married females whose last child age is more than 2 years.

Study Tools- Using Structured Questionnaire for face to face interview with mother.

Sampling Technique- Simple Random Sampling.

Type of study- Primary.

Type of data- Unit level Primary data collected during CCM-3 Survey conducted by IPE Global Limited in the months of April to May 2022.

Data Collection Procedure- The data would be collected using structured questionnaire administered during the time of interview to the respondent and data would be recorded by the Interviewer.

- A local female of the community would be present with the Interviewer to ease the process, any language translation if needed and to comfort the females to the questions asked during the interview.

Data Analysis Plan- Data was recorded, cleaned and compiled using MS Excel software (Version 2202) and was analysed by using SPSS software (Version 22).

Operational definitions-

- **Breastfeeding-** It is the process by which mother's breast milk is fed to the child.
- **Complementary feeding-** A process of feeding starting when breast milk is alone not sufficient to meet the nutritional requirements of infants, and therefore other food and liquids are needed along with the breast milk.

ANALYSIS-

This table depicts different responses collected from 1250 samples on various socio-economic and demographic parameters.

TABLE.1- ANALYSIS OF SOCIO-ECONOMIC AND DEMOGRAPHIC CHARACTERISTICS OF THE RESPONDENTS.

Sr. No.	Characteristics	Frequency (n= 1250)	Percentage (%)
1	No. of children's		
	1	189	15.12%
	2 to 3	536	44.66%
	4 to 5	455	36.44%
	More than 5	70	5.60%
2	Religion		
	Hindu	1234	98.70%
	Muslim	13	1%
	Christian	0	0%
	Others	3	0.20%
3	Caste		
	Schedule caste	76	6.10%
	Schedule Tribe	954	76.30%
	OBC	63	12.60%
	General	157	5.00%
4	Mother Education Level		
	Illiterate	143	11.40%
	Primary	177	14.20%
	Middle	287	23%
	Secondary	297	23.80%
	Higher Secondary	225	18.00%
	Graduate and above	121	9.70%
5	Age at Marriage		
	Less than 18 years	635	50.80%
	More than 18 Years	615	49.20%
6	Age at First Child Birth		
	Less than 15 years	132	10.56%
	15 to 18 years	296	23.68%
	19 to 25 years	524	41.92%
	26 to 30 years	186	14.88%
	30 + years	112	8.96%
7	Current status of marriage		
	Living with husband	1010	80.80%
	Divorced	56	4.48%
	Widowed	184	14.72%
8	Economic Dependence of Mother		

	Government Job	112	8.96%
	Private Job	205	16.40%
	Self-employed/ Business	263	21.04%
	Unemployed/Housewife	670	53.60%
9	Monthly Income of family from all sources		
	Less than 5000	312	24.96%
	5000-10000	476	38.08%
	11000-25000	283	22.64%
	More than 25000	179	14.32%

INTERPRETATION-

From the above analysis on various indicators related to Socio-economic and demographic factors that plays an important role in Infant and Young Child Feeding practices, it is clearly evident that-

1. 525 females out of total 1250 respondents have four or more than four children's. The number of children impacts the nutritional status of the females as the standard gap between two child is 3 years and if the female frequently becomes pregnant not only their nutritional status and health is affected but also the health of the pregnant child is affected badly as the child derives nutrition from mother. It also impacts the child health as the mother is not able to properly take care of one child at a time as she is getting pregnant frequently and taking care of child adequate nutrition becomes difficult.
2. Around 76.30% (954 respondents out of 1250) are from tribal population and they firmly believe on their traditional thinking and it is quite difficult for them to adapt to new changes and it is difficult for Front-line workers to educate and counsel them for Infant and Child nutrition practices.
3. The education level of mother plays a very important role during nursing of the child. In Dungarpur 11.40% respondents are illiterate i.e. they are having no formal education at all, 61% respondents have attended schooling till secondary level and only 28% respondents are there who are either having higher secondary level education or are graduate and above.
4. Age at marriage plays a crucial role both for mothers and children's. Around 51% of the respondents in Dungarpur were married earlier than 18 years of age and this is a serious concern as early marriages results in early pregnancies and it poses severe threats both on mother and child survival, child development, production of breastmilk and the overall nutritional status of the children's.

5. Age at First Child Birth is also a crucial factor when it comes to child nutrition status. Around 34 to 35% of females in Dungarpur had their 1st child before 18 years of age and this badly impacts the pregnancy outcomes as well as survival of both mother and child.
6. Economic dependence of mother is another parameter. If the female is independent and earning then they can give more attention towards the nursing of their child as many a times it is seen in this patriarchal society that males dominates the females and this becomes even more serious threat in case of girl child. Around 54% of the females in Dungarpur are unemployed that means they are not earning anything of their own and are dependent of the income of husband or other family members.
7. Earning from all sources- The average family earning in Dungarpur is around 10 to 20,000 Rs/per month. This earning is not sufficient to take care of the child if the parents are having more no of children.

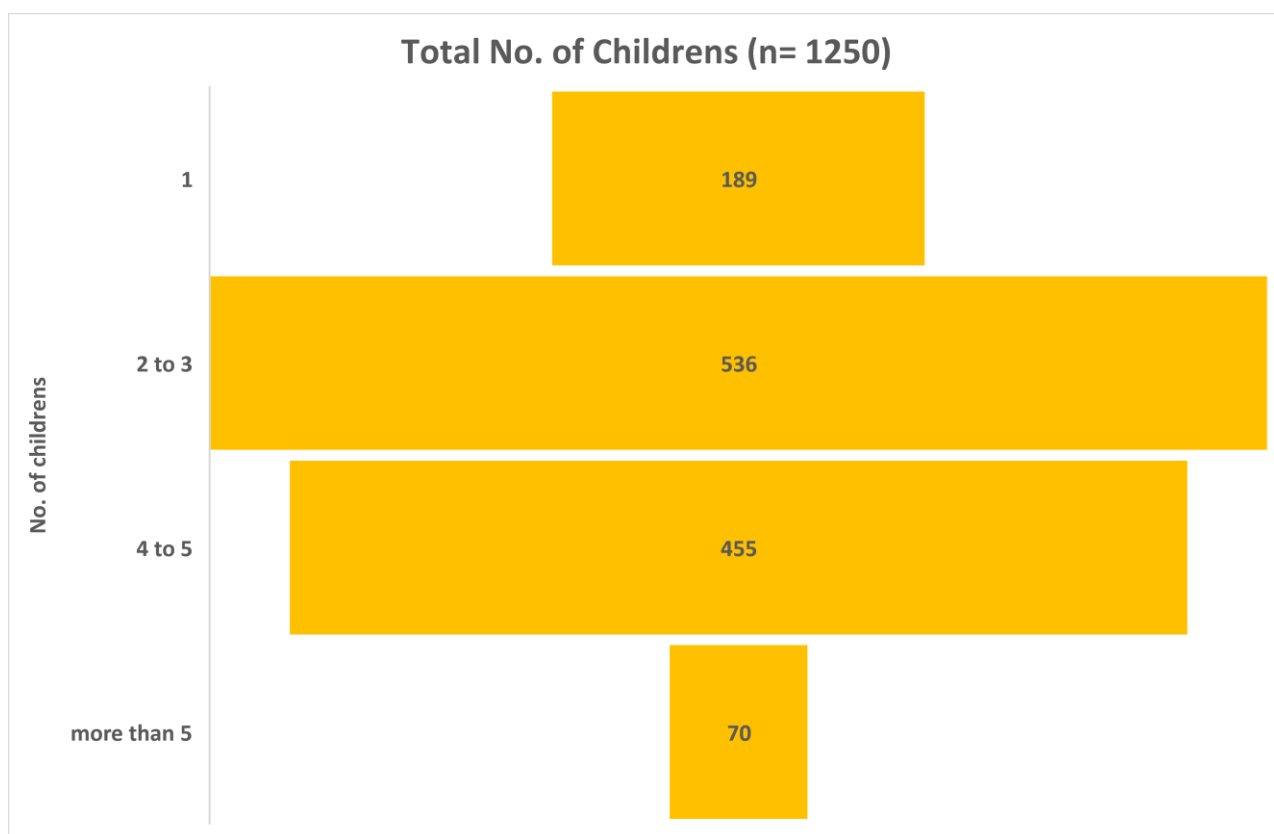


Fig.1- Total no. of living children to a female.

- The above analysis depicts that 189 respondents have only 1 children, 536 respondents have 2 to 3 children, 455 respondents have 4 to 5 children while 70 mothers had more than 5 children.

Characteristic	Frequency (n= 1250)	Percentage
Hindu	1234	98.70%
Muslim	13	1%
Christian	0	0%
Others	3	0.20%
Total	1250	100%

Table.2- Religion wise distribution.

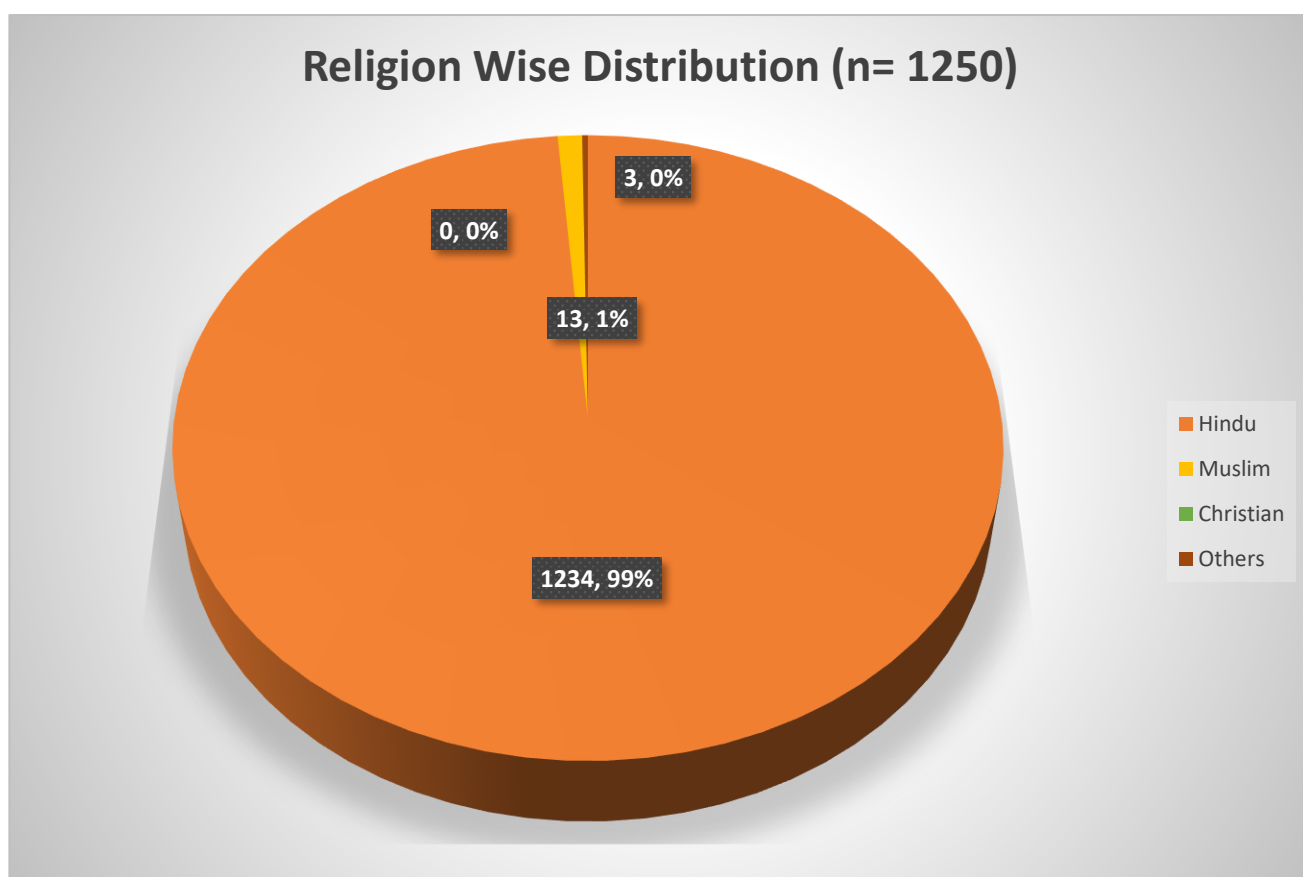


Fig. 2- Religion wise distribution of respondents.

- From this analysis it is clearly evident that majority of the respondents in Dungarpur are from Hindu religion (1234,99%), 13 respondents belongs to Muslim community while there is no Christian population in Dungarpur. Other religions contributed only 0.2%.

Characteristic	Frequency (n= 1250)	Percentage
Schedule caste	76	6.10%
Schedule tribe	954	76.30%
General	157	12.60%
OBC	63	5%

Table.3- Caste-wise distribution.

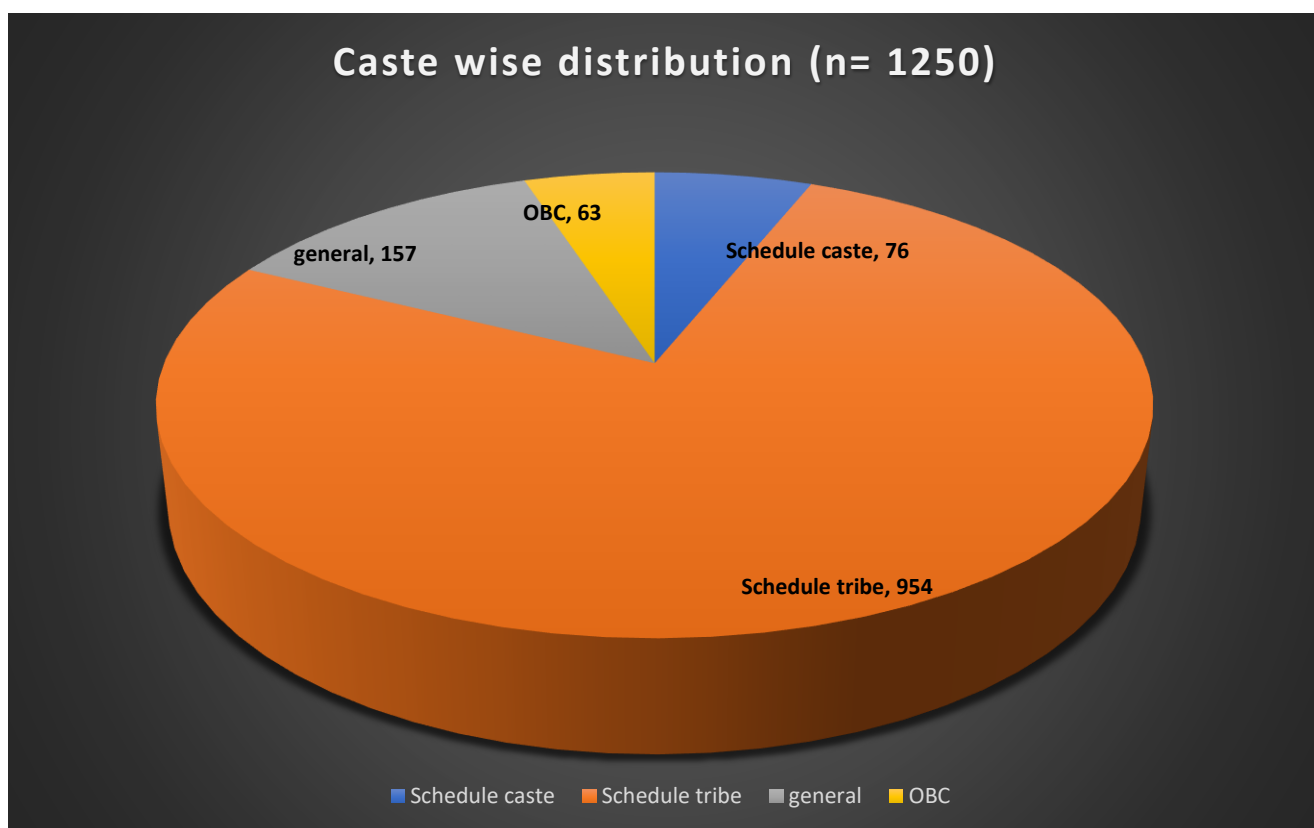


Fig.3- Caste-wise distribution of respondents.

- The Caste-wise distribution of the respondents shows that majority population (954, 77%) belongs to Schedule tribe whereas only 6% respondents belonged to schedule caste. The

general population accounted for 13% of the total respondents and 5% belonged to OBC caste.

Characteristic	Frequency (n= 1250)	Percentage
Illiterate	143	11.40%
Primary	177	14.20%
Middle	287	23%
Secondary	297	23.80%
Higher secondary	225	18%
Graduate and above	121	9.70%

Table.4- Representing the Education level of the mother.

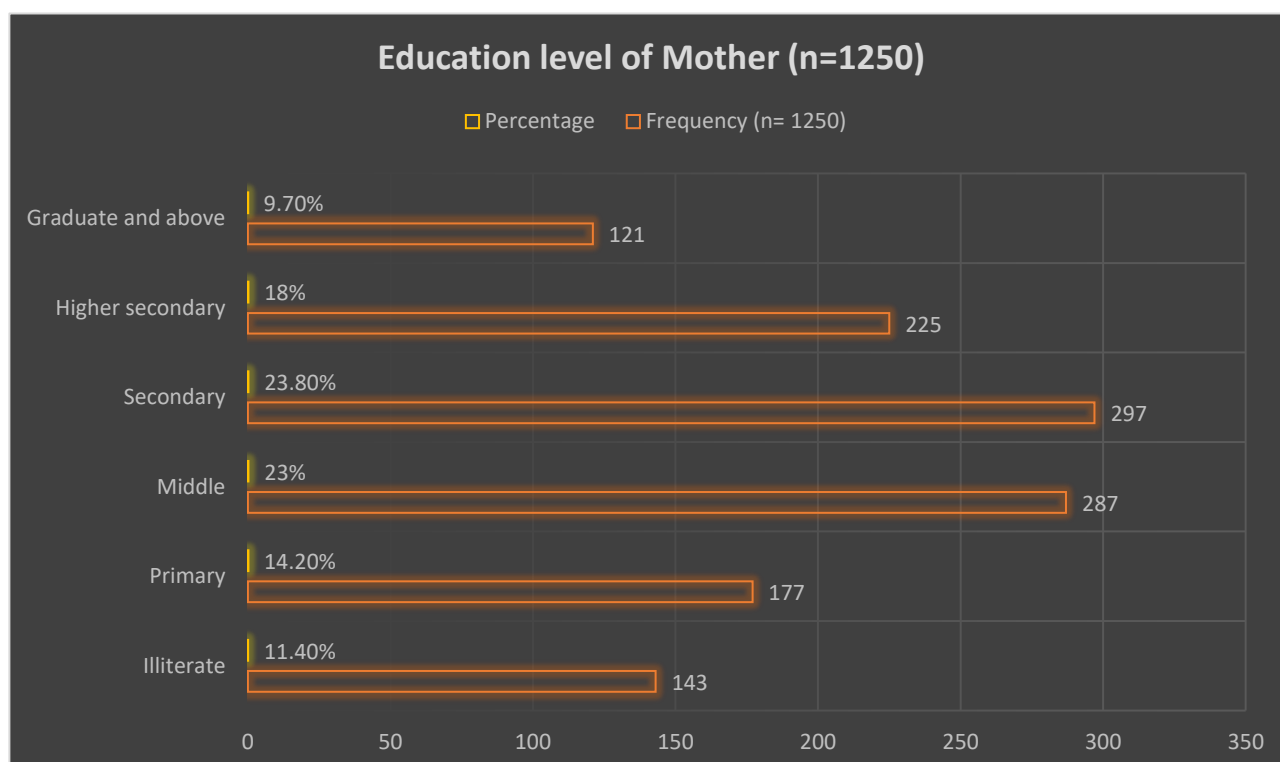


Fig. 4- Distribution of mother's education level

- Above the above analysis it is clearly evident that out of total respondents 143 mothers are illiterate having no formal education, 14% have attained primary education, 47%

respondents got education up to secondary level, 18% got education up to higher secondary level and only 10% females got education more than graduation.

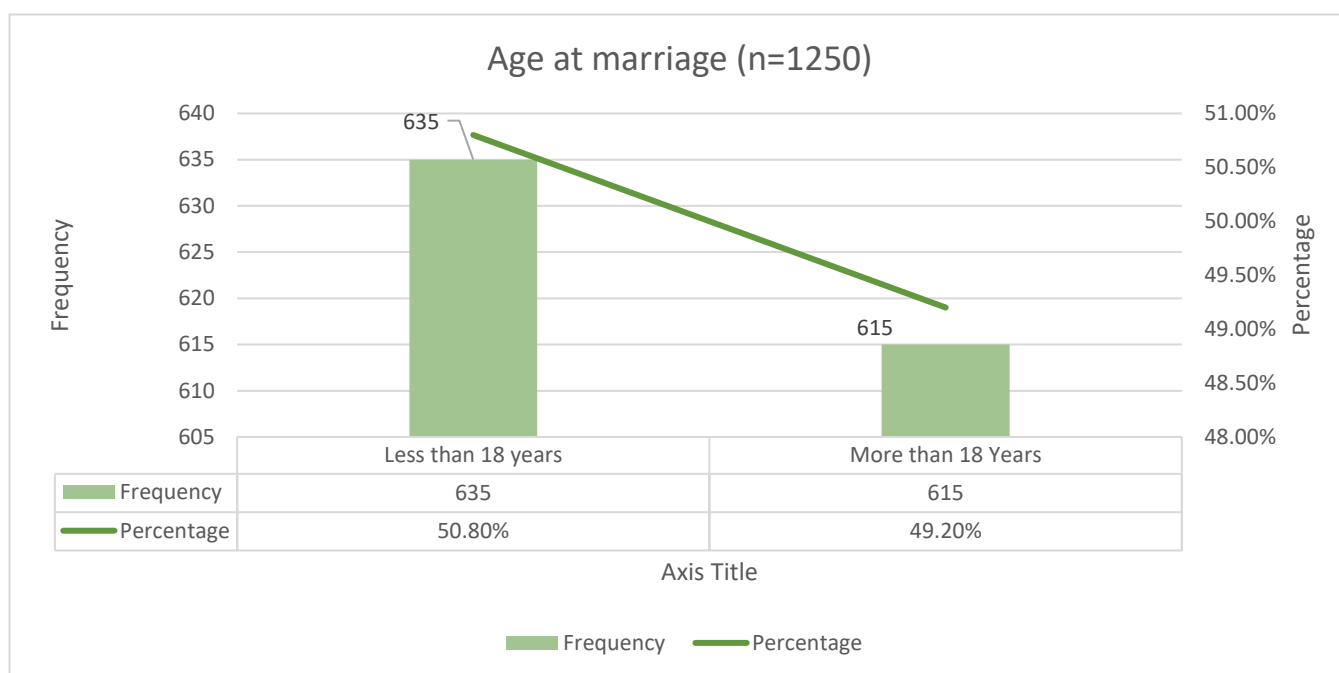


Fig.5- Age at Marriage of the respondents.

- The analysis depicts that around 51% of the females out of total 1250 respondents in Dungarpur got married before the age of 18 years and 49% females got married after attaining the legal age of marriage for females.

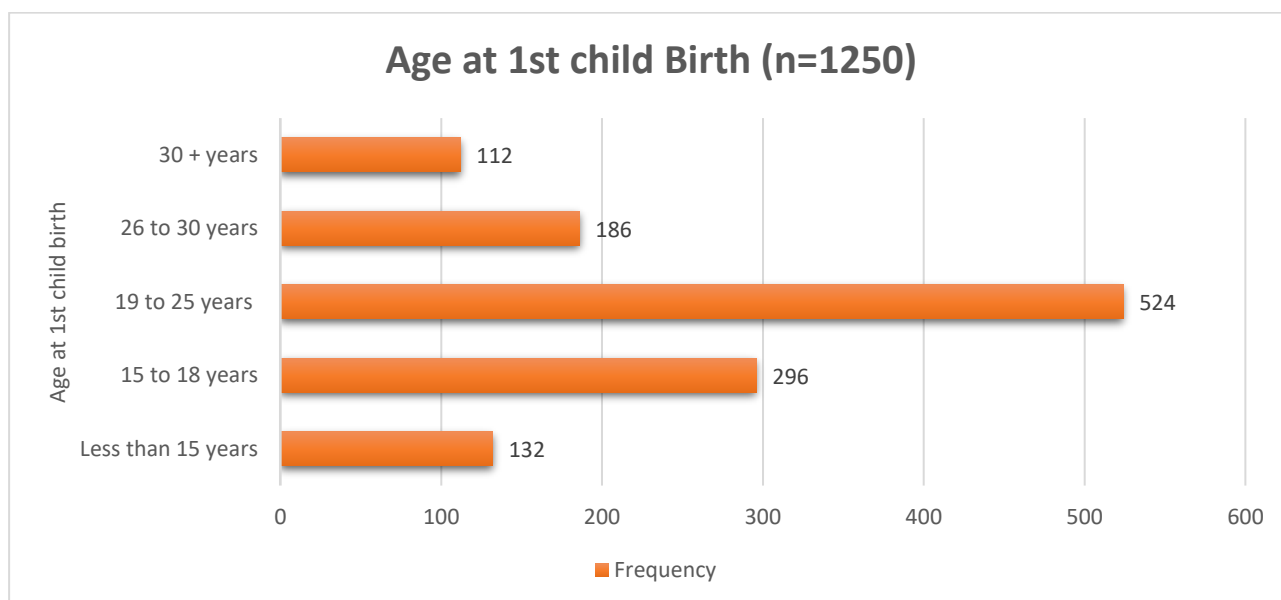


Fig.6- Age at 1st Child birth.

- Out of the total 1250 respondents, 428 respondents had early pregnancy in age less than 18 years. 524 respondents became pregnant at the age of 19 to 25 years, 186 became pregnant at the age of 26 to 30 years. 112 females became pregnant after 30 years of age.

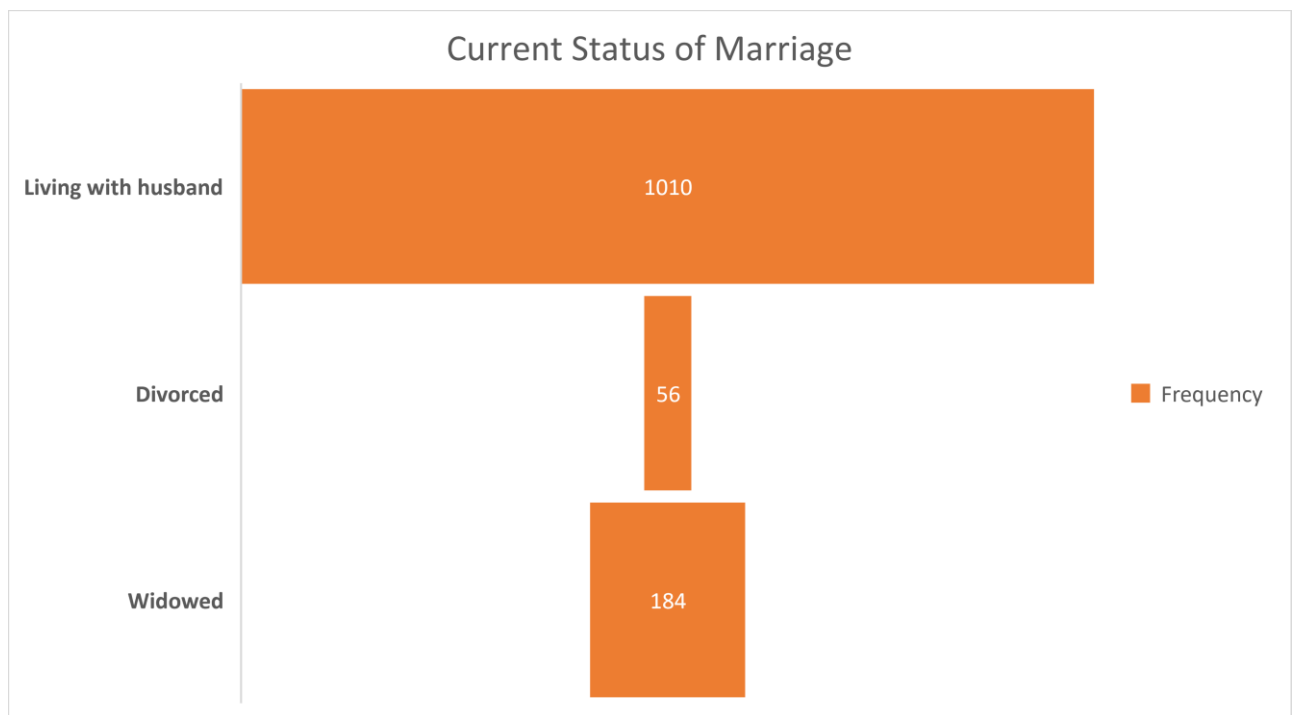


Fig.7- Current status of marriage.

- The above analysis depicts that 1010 respondents out of 1250 respondents are married and currently living with their husband whereas 56 females are divorced and 184 mothers lost their husband and are widowed.

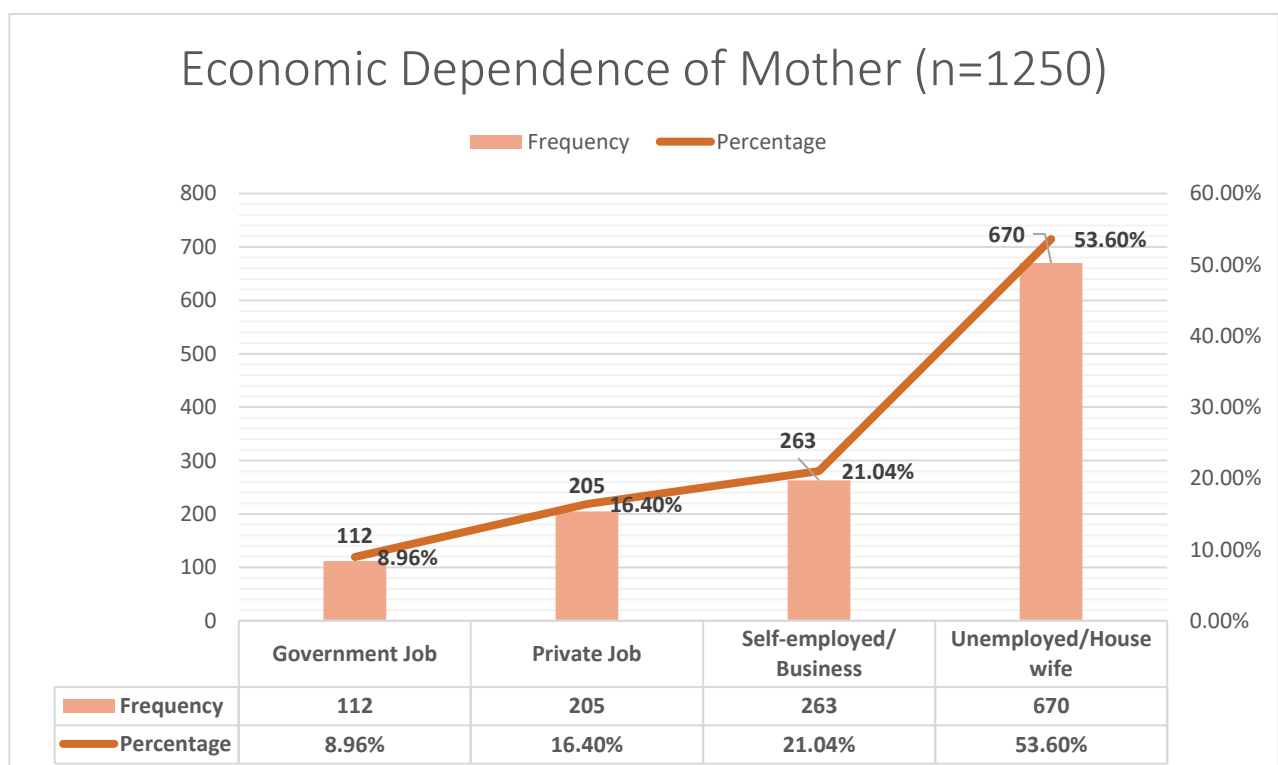


Fig.8- Economic dependence of mothers

- The above analysis depicts that 54% of the females are unemployed/ housewife and are dependent on their family or husband for their living whereas 9% females are employed in

government sector jobs, 16% females are employed in private sector whereas 21% females are self-employed or are doing some sort of business.

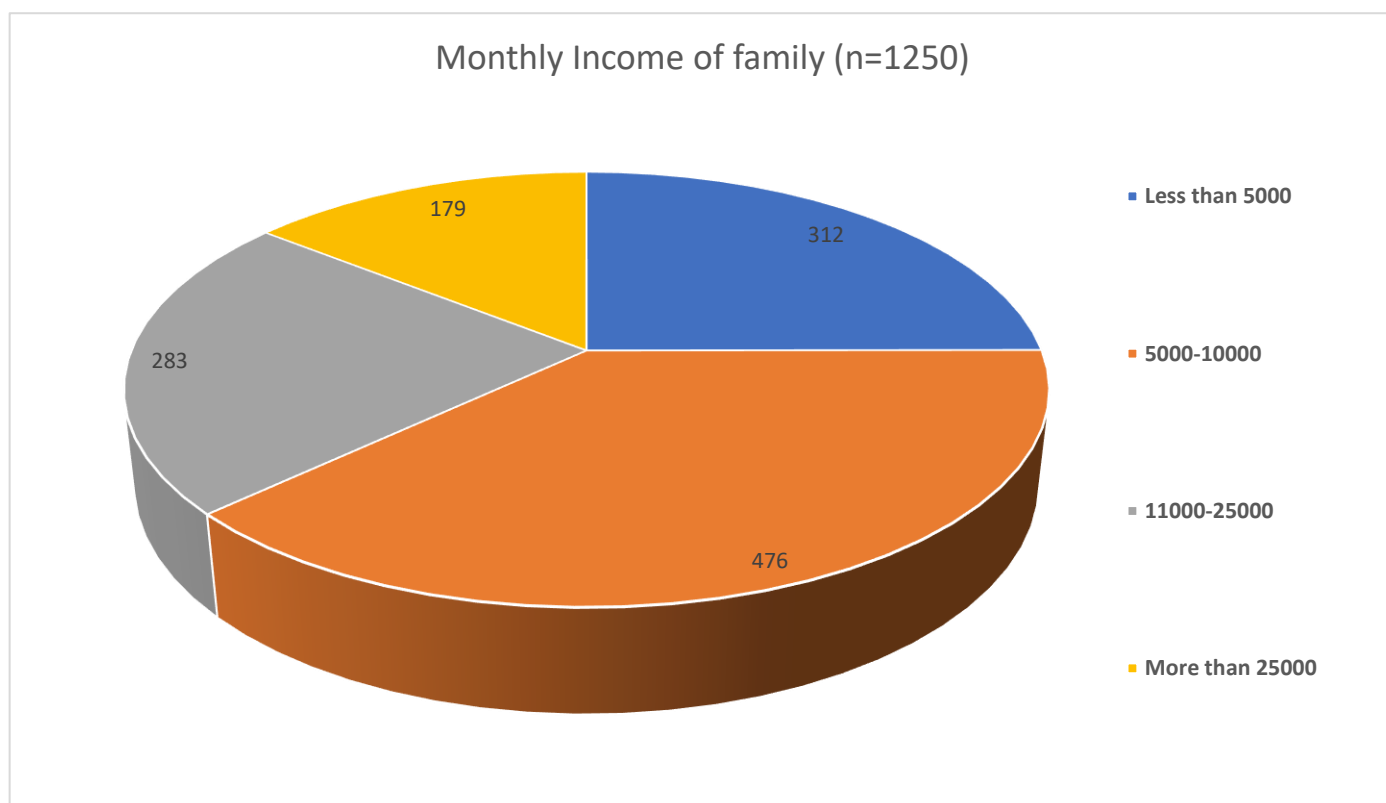


Fig.9- Monthly family income of respondents from all sources.

- This analysis shows the monthly family income of all respondents from all sources. 312 females out of 1250 respondents have monthly income less than Rs.5000 per month, 476 females have monthly income ranging between Rs. 5000 to 10,000 per month, 283 respondents have Rs. 11,000 to 25,000 monthly income and only 179 respondents reported their monthly income above Rs. 25000 per month.

Table 5- Analysis of Knowledge, attitude, and practices of Exclusive breastfeeding and complementary feeding

Sr. No.	Characteristics	Frequency (n= 1250)	Percentage (%)
1	Birth Weight of Child		
	Less than 1kg	13.0	1.00%
	1 to 2kg	49.0	3.90%
	3 to 4kg	1168.0	93.40%
	5kg	10.0	0.80%
	More than 5kg	10.0	0.80%
2	Initiation of Breastfeeding		
	Immediately after birth within 30 minutes	776.0	62.10%
	Within the first hour after delivery	424.0	33.90%
	Within 24 hours	31.0	2.50%
	A day or more after delivery	17.0	1.40%
	Don't know	2.0	0.20%
3	Feeding the colostrum/first milk		
	Yes	1157	92.60%
	No	93	7.40%
4	Any supplementary feeding other than breastmilk in first 3 days after delivery		
	Yes	53	4.20%
	No	1178	94.20%
	Don't know	19	1.60%
5	Duration for exclusive breastfeeding		
	1 month	7	0.60%
	2month	2	0.20%
	3month	2	0.20%
	4month	2	0.20%
	5month	2	0.20%
	6month	1001	80.10%
	7month	186	14.90%
	8month	32	2.60%
	9month	2	0.20%
	10month	2	0.20%
	12month	12	1%
6	Other liquid feeds given after delivery		
	Water	30	2.40%
	Homemade syrup/fluids	2	0.20%

	Cow (animal) milk	6	0.50%
	Janm Ghutti	2	0.20%
	Formula milk for babies	3	0.20%
	Only colostrum/mother's milk/breast milk	1205	96.40%
7	Age to introduce complementary feeding		
	0 to 6 months	47	3.76%
	7th month	776	62.10%
	8 to 12 months	420	33.60%
	13 to 24 months	7	0.56%
8	Was the child breastfed yesterday during day or night		
	Yes	1080	93.60%
	No	74	6.40%
	Don't know		
9	Frequency of complementary feeding (solid, semi-solid or soft food)		
	2 to 3 meals per day	995	79.60%
	4 to 5 meals per day	244.0	19.50%
	Don't know	11.0	0.90%
10	Age (in months) to start giving water to child		
	1 to 3months	13	1%
	3 to 6 months	142	11.40%
	7th month	925	74%
	8 to 15 months	170	13.60%
11	Understanding about complementary feeding		
	Food given in addition to breastmilk	346	27.68%
	Semi-solid or liquid food given	670	53.60%
	Various types of foods given for meeting the child's nutritional requirement	114	9.12%
	Don't know	120	9.60%
12	Do you know the disadvantage of formula feeding		
	Yes	970	77.60%
	No	203	16.24%
	Don't know	77	6.16%
13	Difficulties faced while feeding the child		
	Baby cries	205	16.40%
	Baby don't want to eat	226	18.08%
	Eats only when hungry	115	9.20%
	Doesn't eat sufficient amount of food	202	16.16%
	No difficulty	390	31.20%
	Not specified	112	8.96%
14	Do you maintain hand hygiene and utensil hygiene while feeding		
	Yes	1007	80.56%

No	228	18.24%
Never	15	1.20%

INTERPRETATION-

Face to face interview was conducted using questionnaire for the CCM Round 3 by IPE Global Limited in the month of April. 1250 married females were interviewed for the same whose last child age was less than 2 years. The aim of the study was to find the Socio-economic and demographic factors along with knowledge, attitude, and practices of Infant and Young Child Feeding in the District of Dungarpur of Rajasthan.

The main findings of the study were as follow-

- Around 94% of the children's born were healthy baby with an average weight between 3 to 4kg which is a good indication as it suggests that the mothers health was good.
- Around 95% of the females breastfeed their child within one hour of the birth of child. This is a good indicator as the first breastmilk called colostrum is extremely beneficial for the child health.
- 93% females fed there child with colostrum.
- 94% mothers did not feed their child with anything other than the breastmilk in the first 3 days after delivery. This is a good number and it highlights there awareness towards the importance of exclusive breastfeeding.
- Around 81% females exclusively breastfeed there child for 6 months. This is as per WHO recommendation.
- 96% females only breastfeed there child after delivery and did not used any other liquid feed like water, homemade syrups etc.
- Around 62% females were aware of the correct age for initiation of complementary feeding.
- 80% females fed there child 2 to 3 times per day which is the standard feeding frequency along with breastmilk for 1 year.
- Around 70% females have the understanding about complementary feeding and its importance for the child health and development.
- 77% females were aware of the disadvantage of formula feeding on the health of their child.

- Around 32% females did not faced any difficulty while feeding their children while rest faced issues like baby starts crying while feeding, baby does not wants to eat, eats only when hungry etc.
- 81% females maintained hand hygiene and they cleaned their hands every time before feeding their child. They also cleaned the utensils like bowl, spoon, glass and other things used while feeding the child.

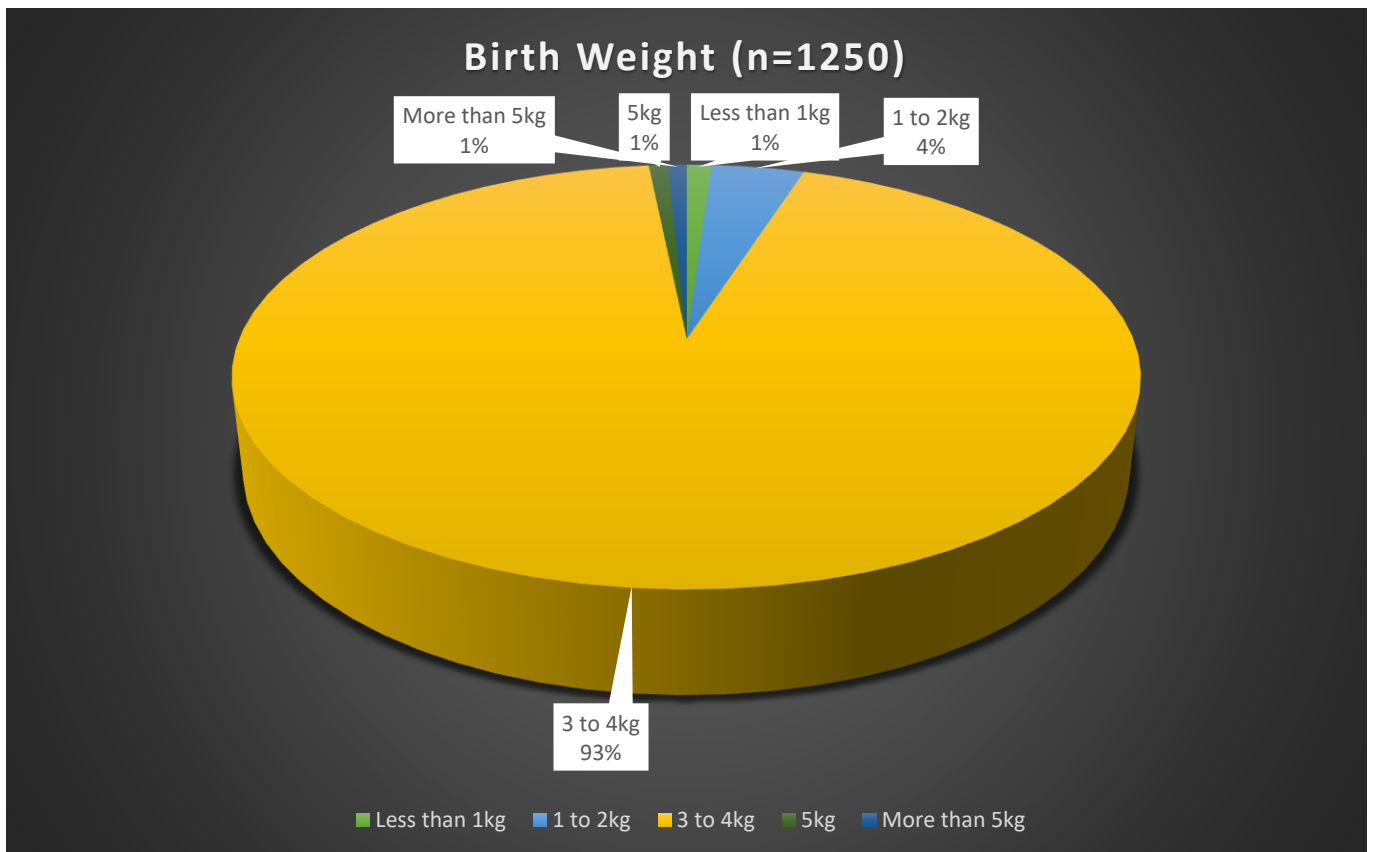


Fig. 10- Birth weight of the children's of the respondent.

- The above analysis depicts the average birth weight of babies during delivery. Only 1% of the respondents had their babies birth weight less than 1kilograms, 4% respondents have their babies birth weight between 1 to 2 kgs, 93% females reported it to be between 3 to 4kgs which is the ideal birth weight of the baby, 1% babies have their weight between 4 to 5kgs and the percentage of babies having birth weight more than 5kg is only 1%.

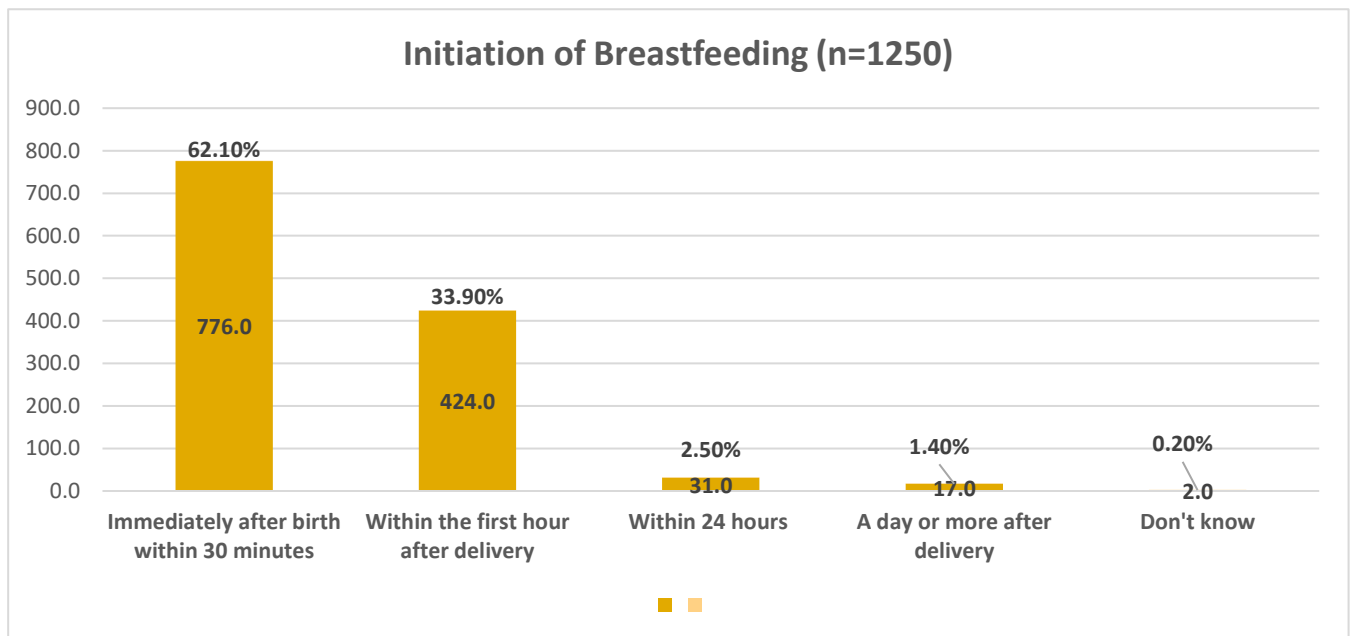


Fig.11- Timing of initiation of breastfeeding.

- Early initiation of breastfeeding is very crucial for baby development and health. From the above analysis it is clear that 62% females fed their child immediately or within 30 minutes of birth, 34% females fed their child within 1 hours of birth, 2.5% females fed their child within 24 hours of birth whereas only 1.4% females breastfeed their child after a day or more after delivery.

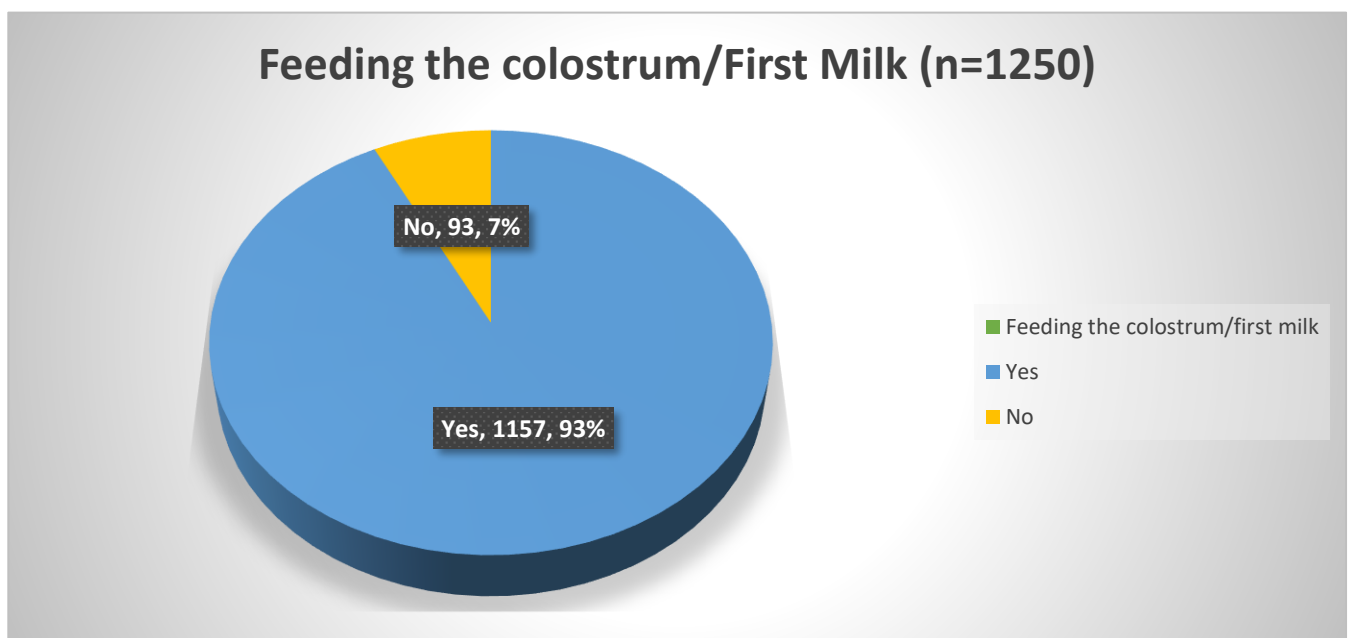


Fig.12- Feeding the colostrum/ First milk

- 1157 respondents out of 1250 respondents fed their child with the colostrum/ first milk after birth whereas only 7% respondents reported that they did not fed their child with the colostrum after birth.

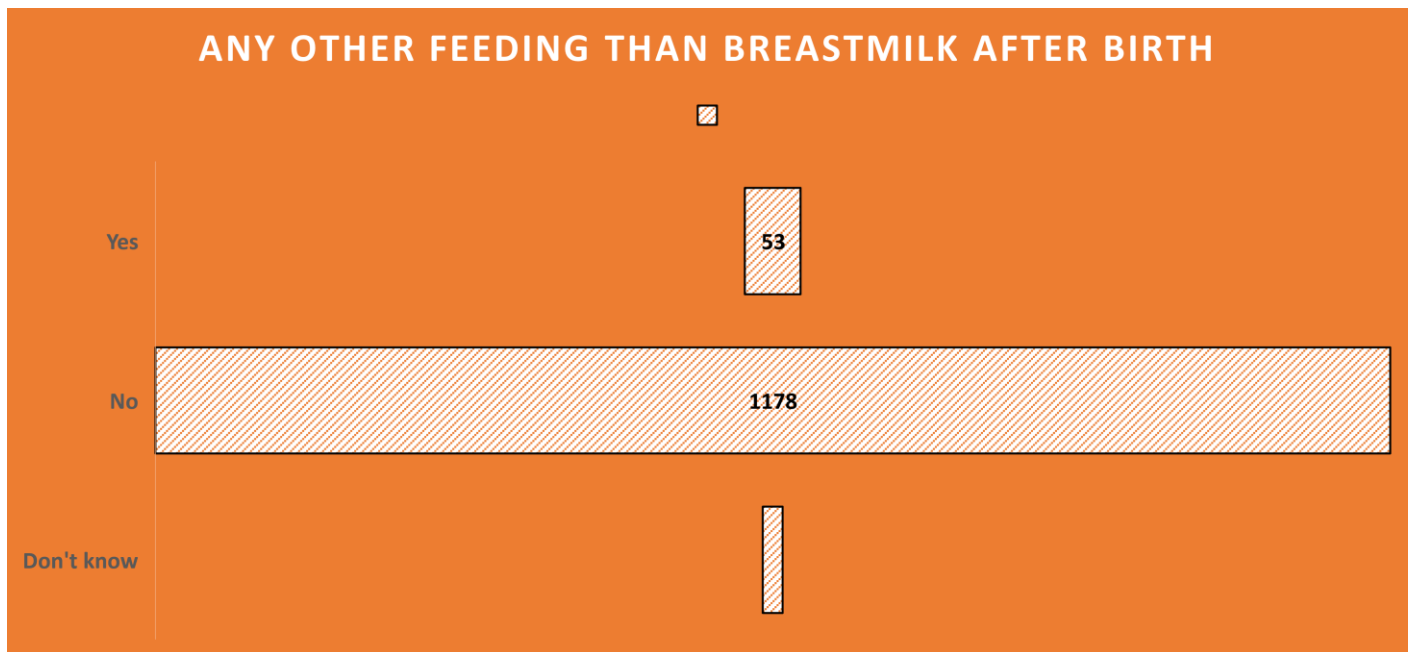


Fig.13- Gave anything other than breastmilk to their child after birth.

- The above analysis depicts that only 53 respondents out of total 1250 respondents gave any other liquid than mother milk to their child whereas 1178 respondents did not give anything other than mother milk to their child.

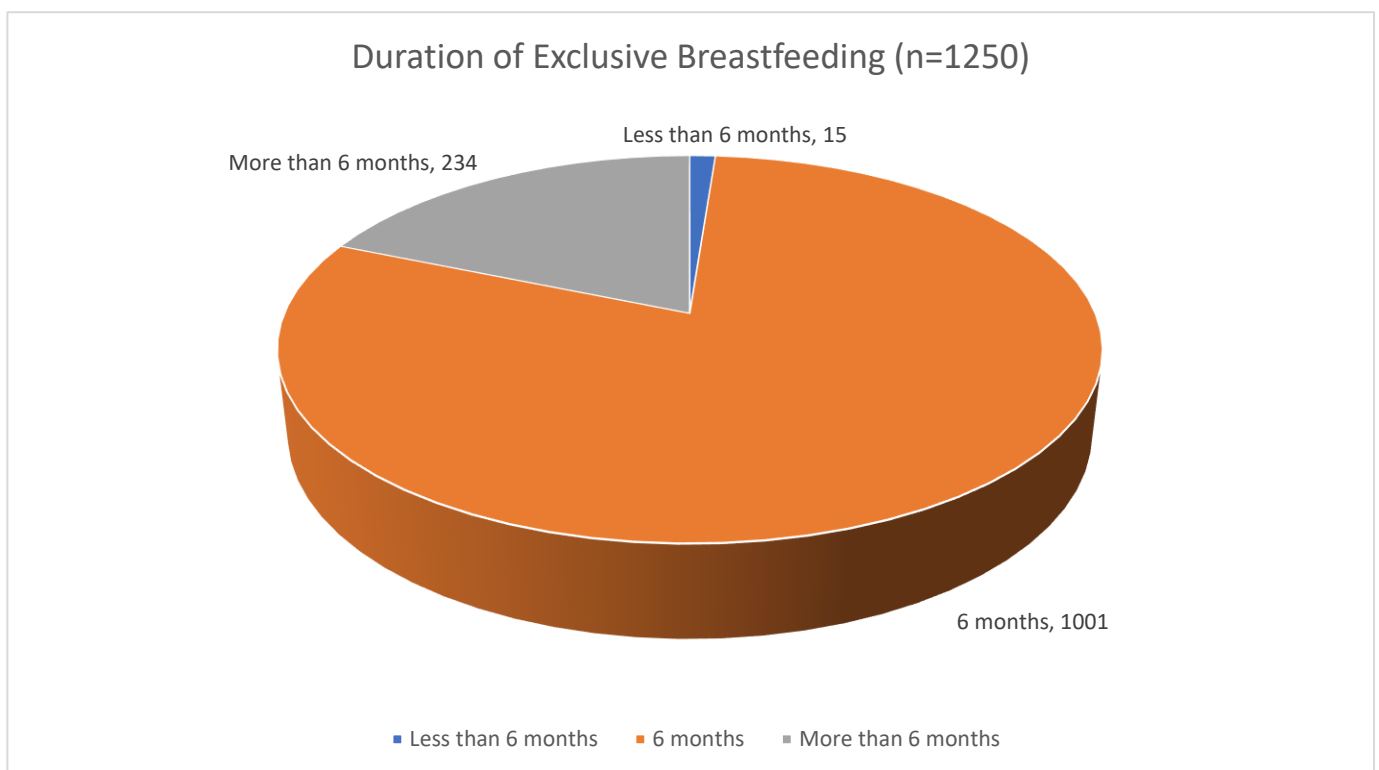


Fig.14- Duration of Exclusive Breastfeeding.

- From the above analysis it can be seen that majority of the females have correct knowledge about the duration of breastfeeding. 1001 respondents out of 1250 respondents know the correct age of stopping the exclusive breastfeeding i.e. 6 months as per WHO

recommendation. 15 respondents reported it less than 6 months and 234 females mentioned that the correct duration of breastfeeding above 7 months to 1 year of age.

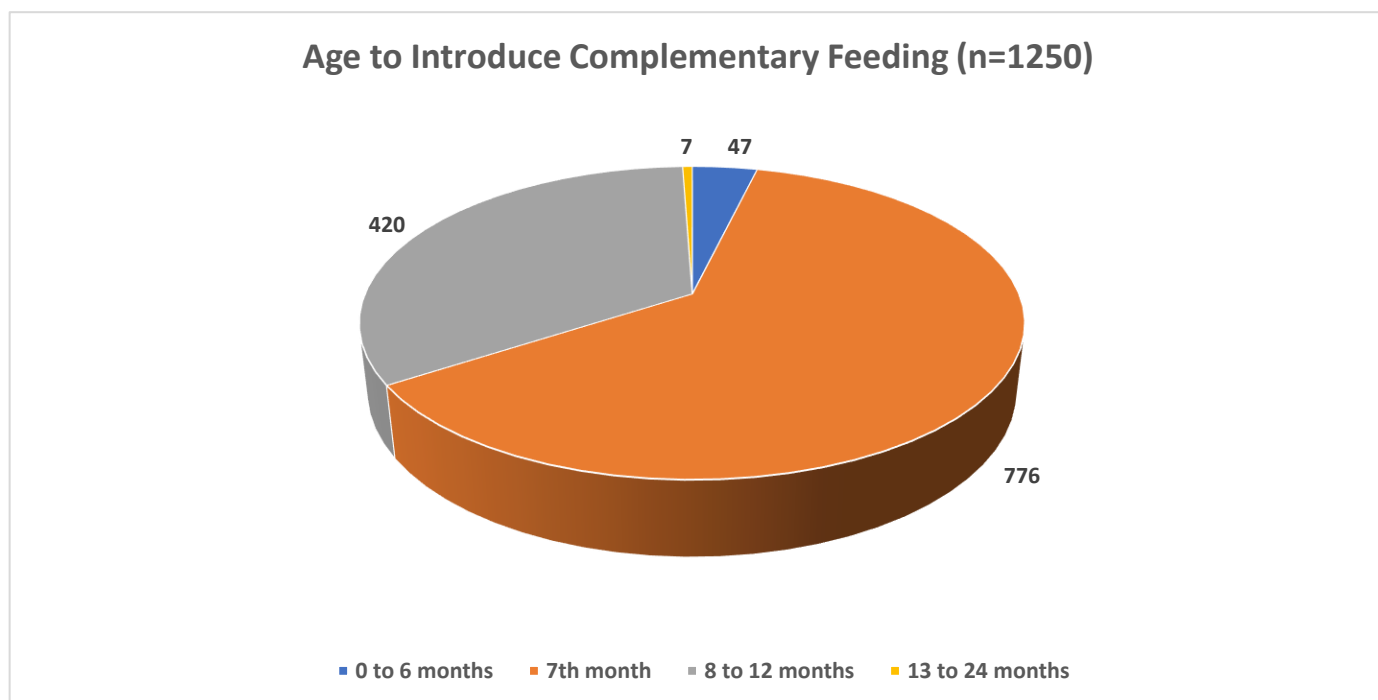


Fig.15- Initiation of complementary feeding.

- The above analysis depicts the respondents knowledge about the correct time for initiation of complementary feeding. 47 respondents reported that the correct age is between 0 to 6 months, 776 females reported that as from 7th month, 420 mothers stated it as 8 to 12 months and only 7 females stated it between 13 to 24 months.

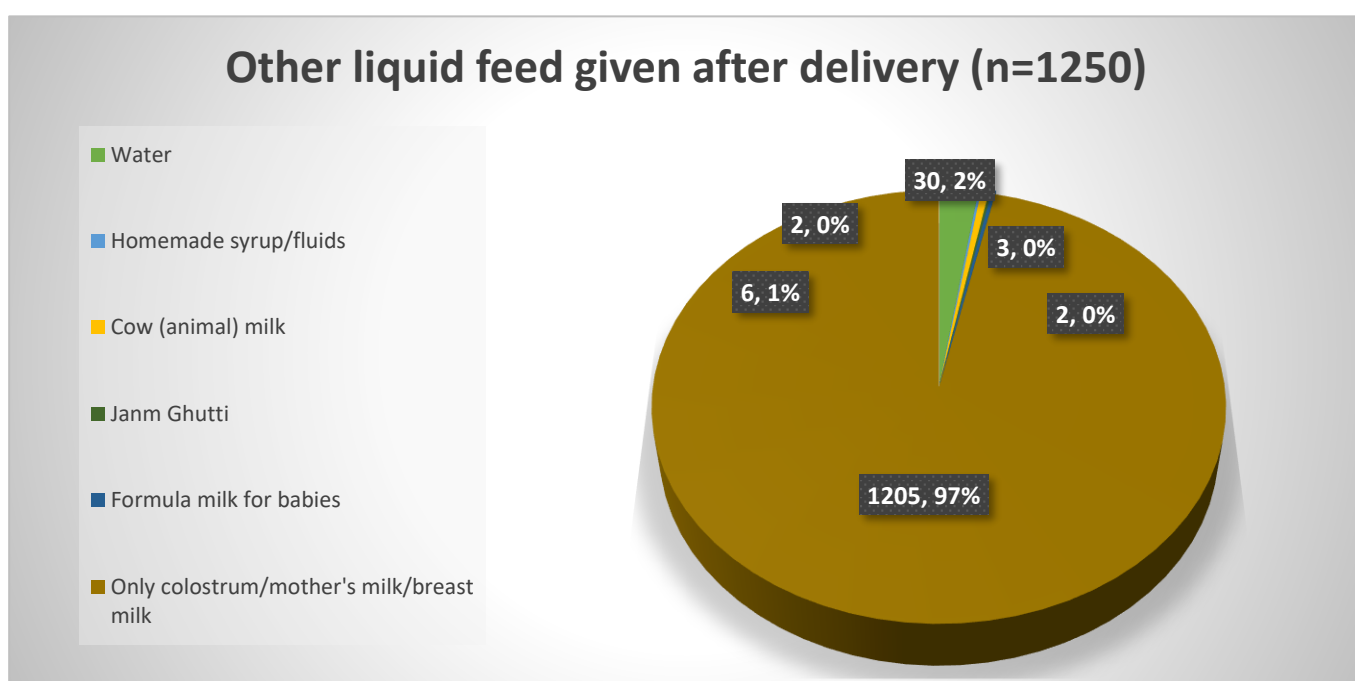


Fig.16- Feeding any other liquid to the child other than mother milk after birth.

- The above analysis depicts that 97% of the females fed only colostrum/ mother milk after delivery to the child whereas 3% females reported that they fed their child with water, Janm Ghutti, formula milk, homemade syrup or any other liquid diet other than mother milk.

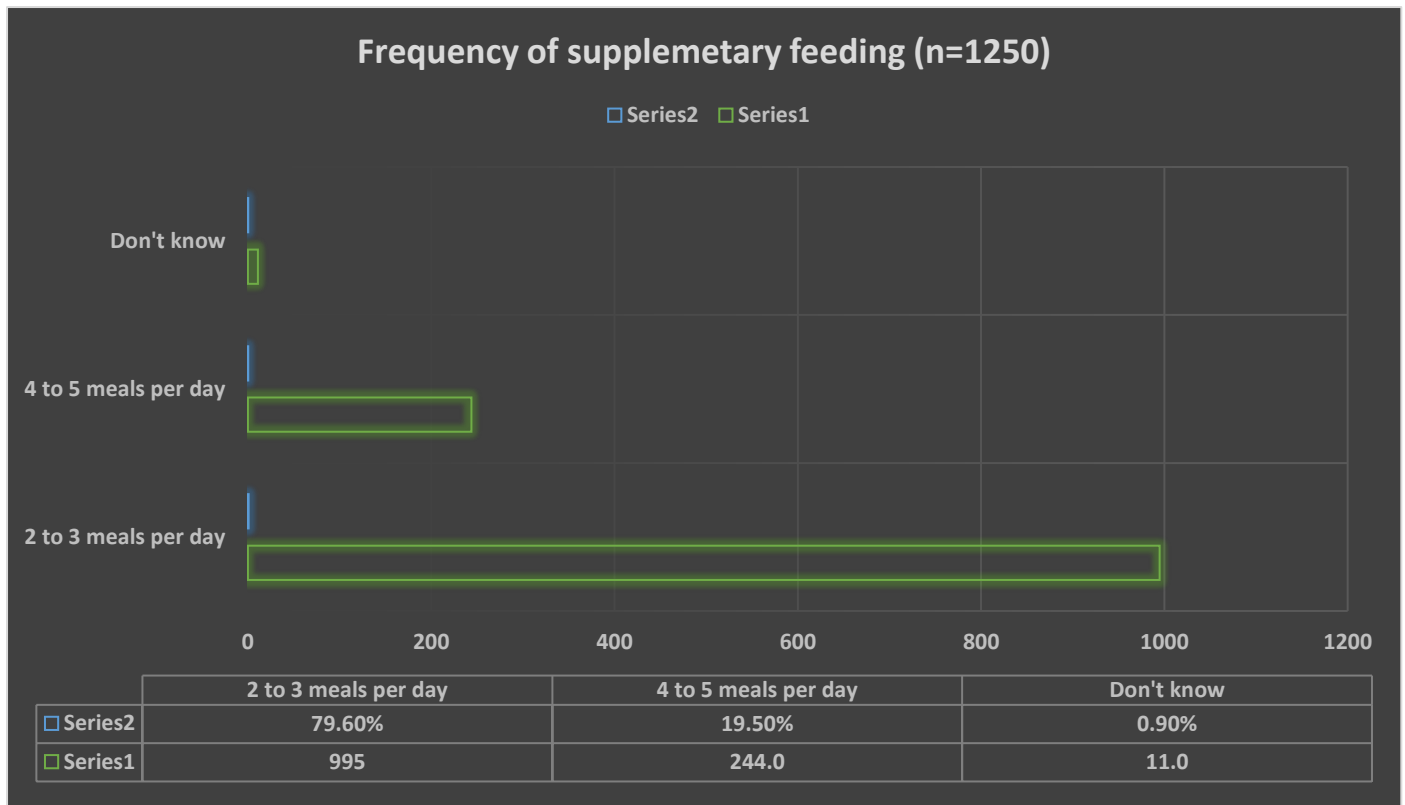


Fig.17- Frequency of complementary feeding.

- Knowing the correct frequency of complementary feeding is very crucial for the mother. The child should be fed with other solid, semi-solid, and liquid feed along with mother milk. 80% females reported that they fed their child 2 to 3 meals per day and around 20% mother's fed their child 4 to 5 meals daily while 0.9% of the females did not know about it.

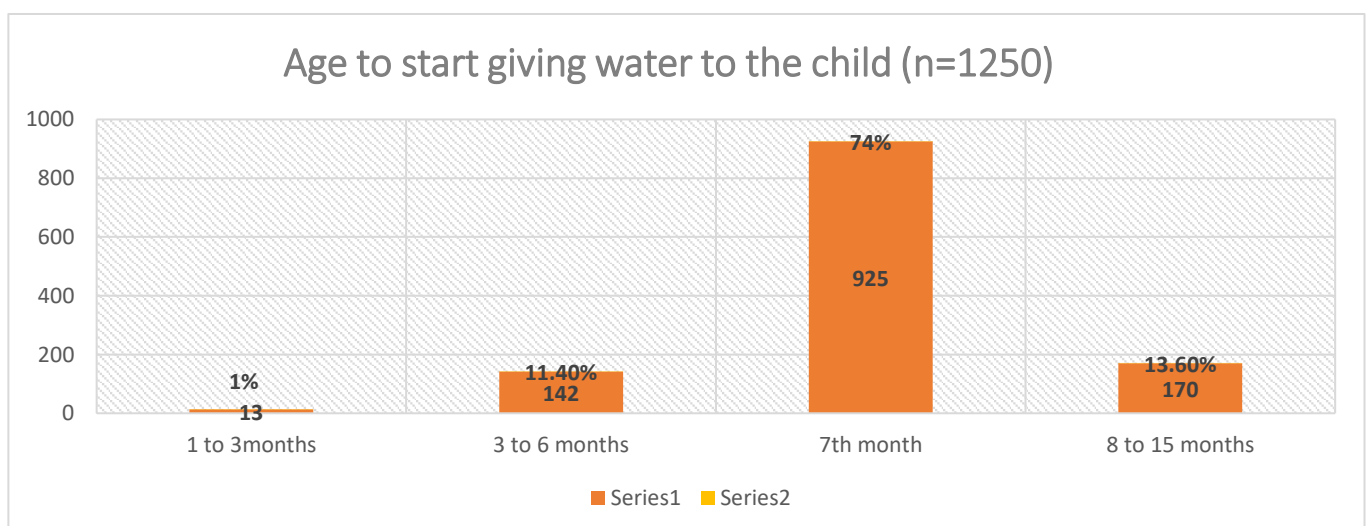


Fig.18- Age to start giving water to the child.

- This analysis depicts the knowledge of mothers to start giving water to the child. 1% mothers reported it between 1 to 3 months after birth, 11% mothers reported it between 3 to 6 months after birth whereas 74% mothers started giving water to their child at the age of 7th month while 14% females started giving water to their child from 8th month onward.

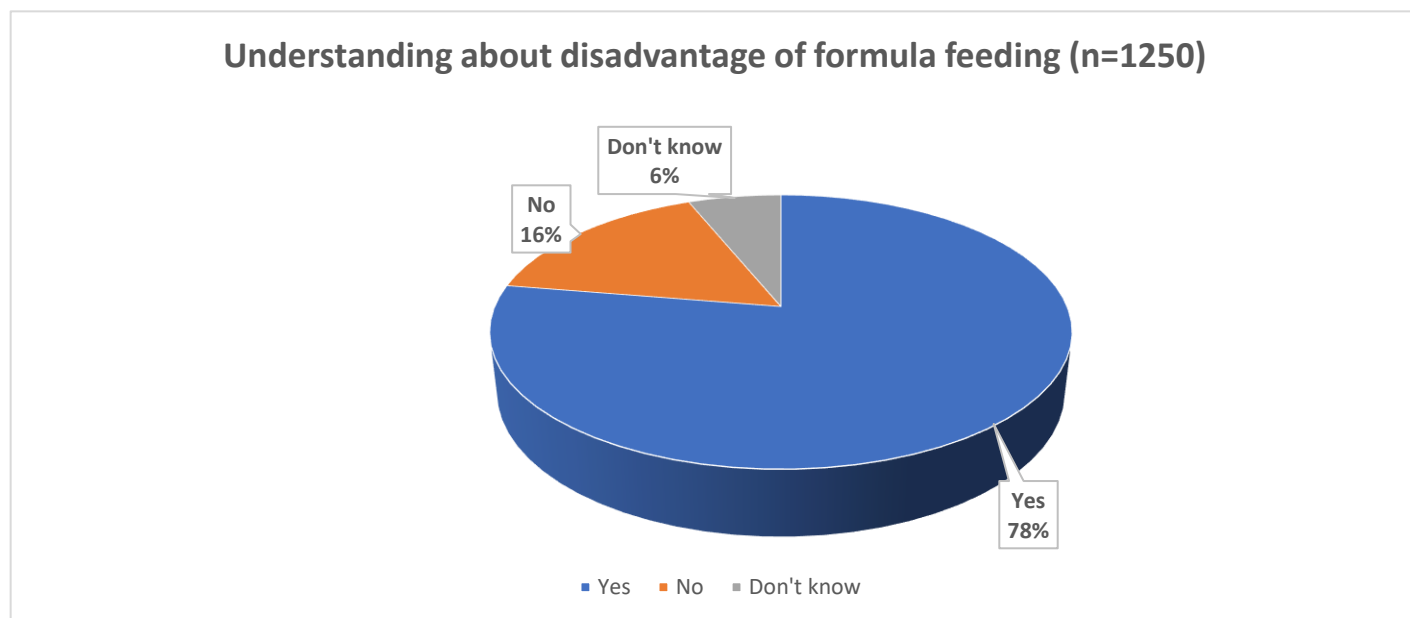


Fig.19- Disadvantage of Formula feeding.

- Formula feeding badly impacts the health of the children. The above analysis depicts that 78% females knows the disadvantage of formula feeding whereas 16% females reported that they did not know the disadvantage of formula feeding while 6% mothers did not knew about the same.

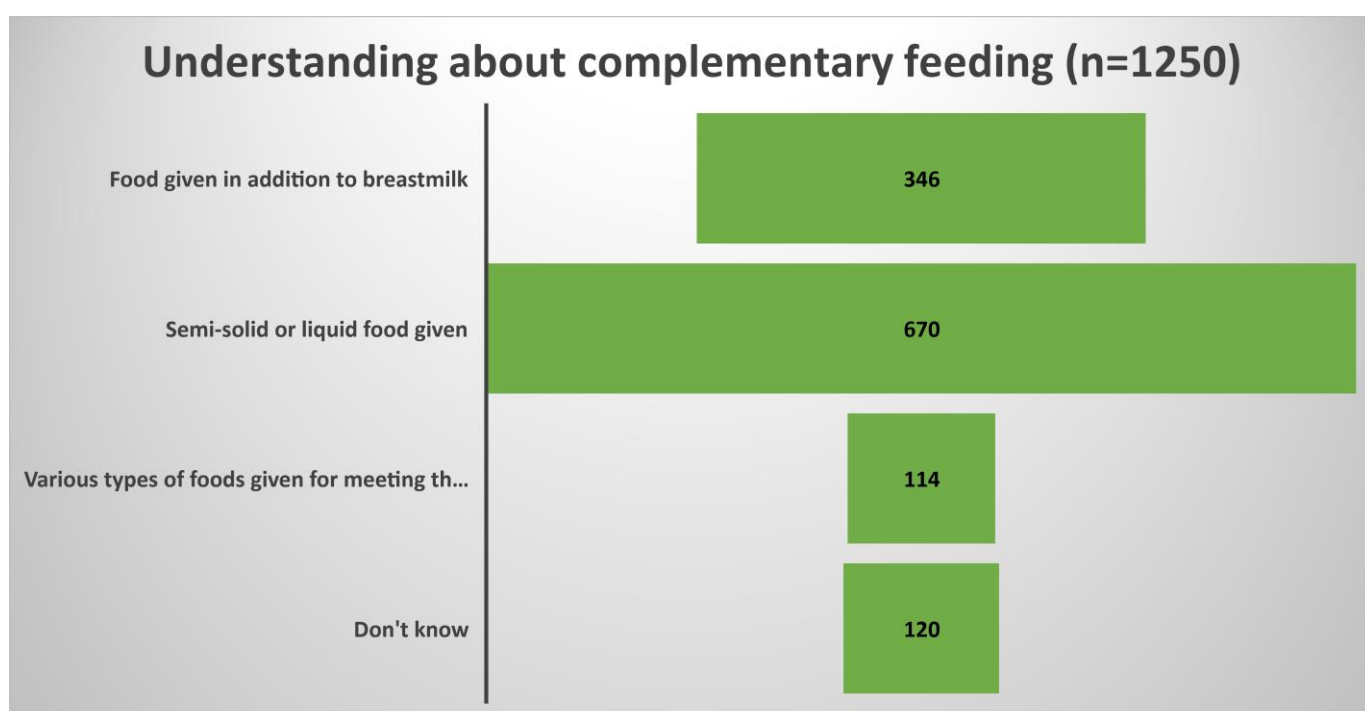


Fig.20- Understanding about complementary Feeding

- This analysis aims at finding the mothers knowledge and understanding about complementary feeding. 346 females out of 1250 respondents stated it as food given in addition to breastmilk whereas 670 respondents understand it as semi-solid, solid and other liquid food given to the child, 114 respondents stated it as various type of foods given to the child for their nutritional requirement and 120 respondents did not knew about it.

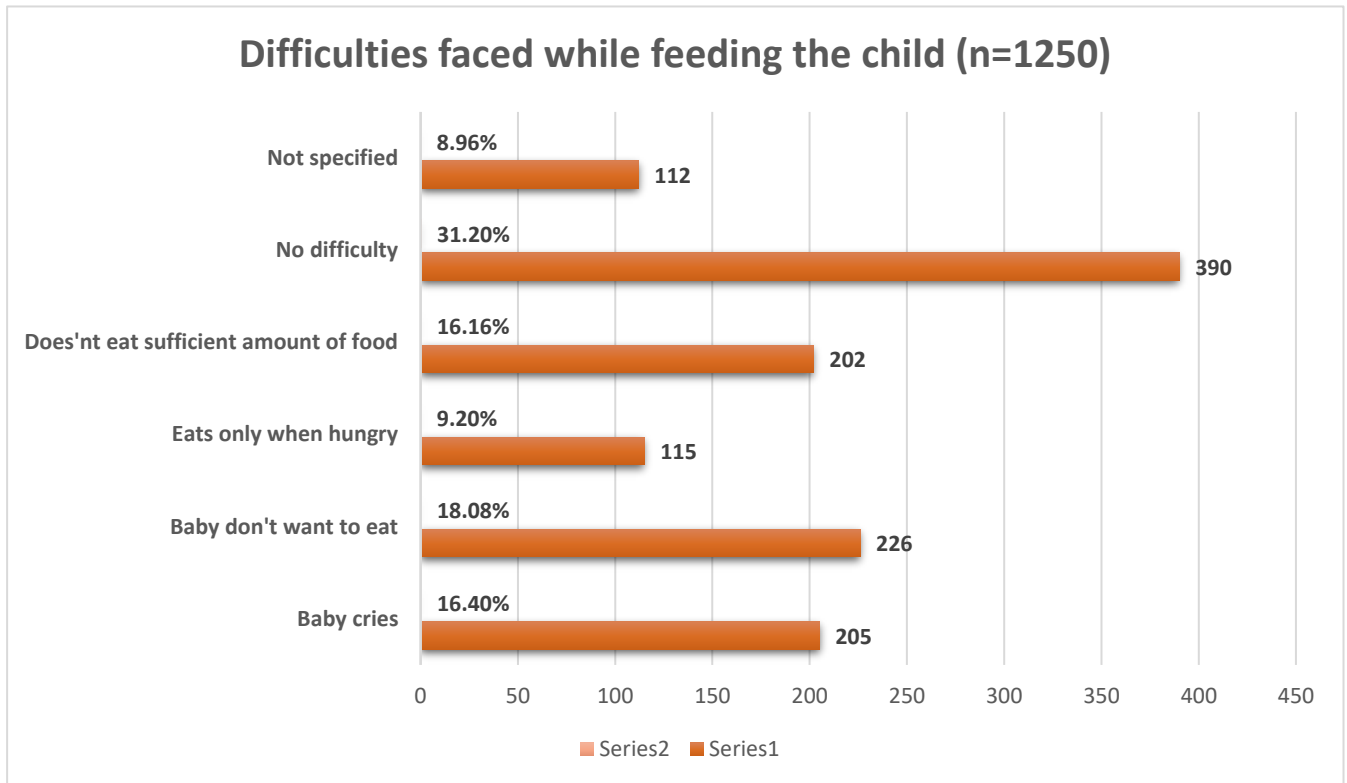


Fig.21- Difficulties faced while feeding the child.

- Child feeding is a very complicated process as the child not co-operates with the mother every time while feeding. This analysis aims to find the reasons what are the difficulties the mothers often encounter while feeding their child. 31% females did not find any difficulty while feeding their child while 9% females did not specified it. Rest 60% of the respondents complained of difficulties such as does not eat sufficient quantity of food, eats only when hungry, baby does not wants to eat and baby starts crying while feeding.

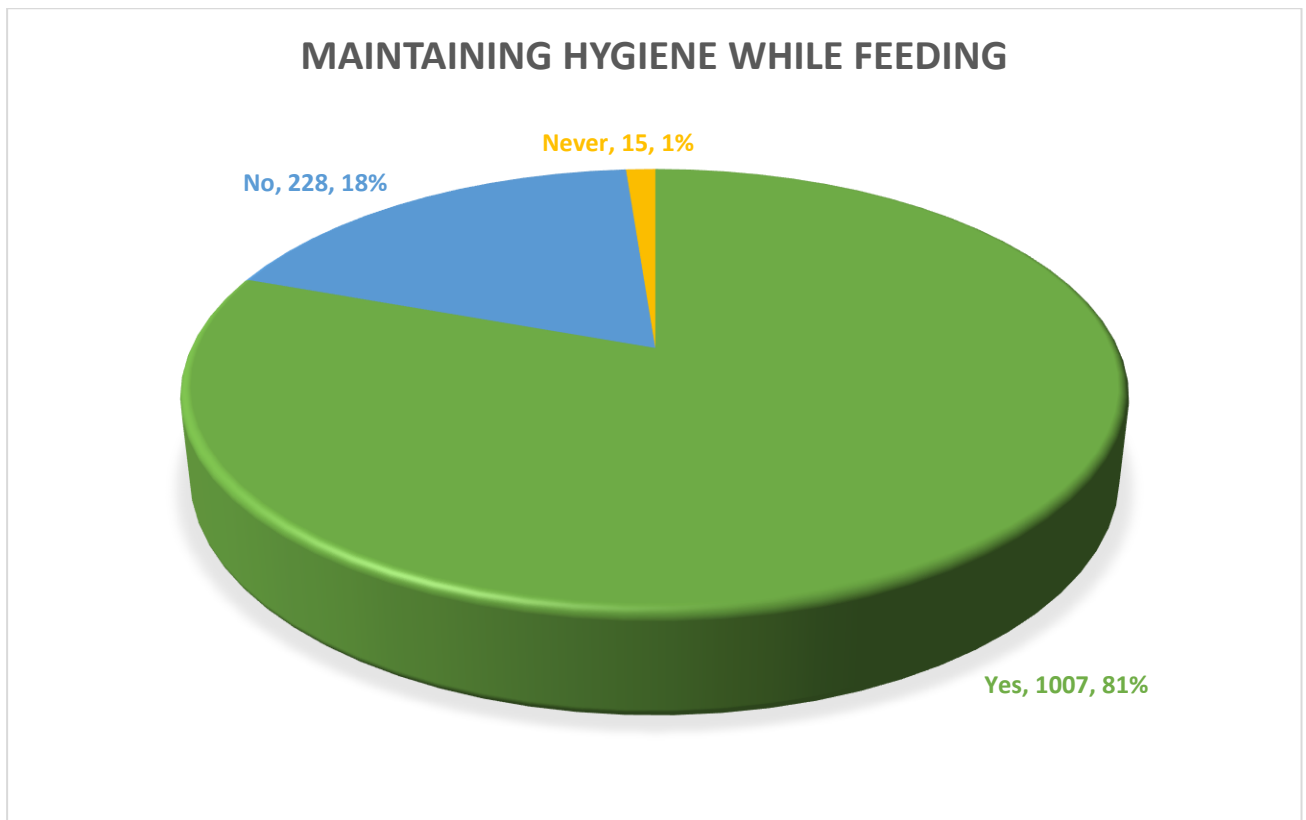


Fig.22- Maintaining hygiene while feeding the child.

- Maintaining proper hand hygiene and personal hygiene while feeding the child is important as it prevents the baby from different type of diseases. According to the analysis, 1007 females out of 1250 females reported that they maintain hand hygiene and washes utensils every time before feeding their child while 18% mothers did not maintained hygiene while feeding. 1% females never maintained hygiene practices while feeding their child.

CONCLUSION-

In India, undernutrition continues to be a serious public health issue. Millions of children continue to suffer from malnutrition in any form, including stunting, wasting, being underweight, or being fat. It has been shown that poor socioeconomic position, maternal illiteracy, early marriage and pregnancy, inadequate and unbalanced nutrition for women during pregnancy and after delivery, low birth weight of the kid, and dietary variety are all factors contributing to India's malnutrition problem. The issue of low birth weight can be resolved by improving the mother's socioeconomic and literate level, which can also aid in boosting maternal nutrition throughout pregnancy. Additionally, increasing mothers' understanding of IYCF procedures will aid in increasing mothers' knowledge of IYCF practises and hence improve the children's nutritional status.

Overall mothers have good knowledge and a positive attitude about IYCF practices but it needs some more interventions to bridge the gaps still existing in Initiation of exclusive breastfeeding and complementary feeding practices. To support IYCF practices, more rigorous behaviour change communication intervention strategies should be implemented and the Front-line workers like ASHA, ANMs and AWWs need to be educated and counselled so that they can further communicate with the mother, husbands and other family members about the importance and benefits of IYCF practices for the child.

GAPS IDENTIFICATION-

- 1- Lack of literacy and awareness among females is one of the most crucial reason for improper practices associated with exclusive breastfeeding and complementary feeding.
- 2- The only aspect of CF that is known about and performed is initiation.
- 3- Because of poverty, women must work, which reduces their time with their children feeding and caring.
- 4- Mothers are unable to prepare meals due to lack of time and resources separately for each child based on his nutritional and age-specific requirements.
- 5- Improper production of milk due to health and other issues also plays a crucial role in abstaining the mother from exclusive breastfeeding.
- 6- Social and cultural beliefs, misconceptions, and myths are also prominent factors.
- 7- The role of husband, Mother-in- Law and other family members also plays a crucial role especially in case of girl child.
- 8- Due to early marriage and early pregnancy the mothers body is not able to handle the pregnancy and this leads either to the death of the mother or the child, non-production of milk and other health complications both to the child and the mother.

RECOMMENDATIONS-

- 1- Strengthening the community's health workers' (AWW, ASHA, ANM) capabilities.
- 2- Instruction in expert IYCF counselling for all healthcare professionals.
- 3- All mothers should have access to counselling so they may increase their understanding and adhere to optimum feeding practises.
- 4- Health personnel should receive refresher training to upgrade and update their expertise.
- 5- To provide for food availability in communities or populations who face food insecurity.
- 6- Public relations efforts in the community and the media to promote complementary feeding and breastfeeding practices.
- 7- Counselling and awareness campaigns for husbands and Mother-in-Laws related to pregnancy care, post-partum care, and IYCF practices.
- 8- Introducing income-generating programmes and educating moms.
- 9- The spread of breastfeeding and the prompt introduction of supplemental feeding in the community.
- 10- Mothers should be urged to visit doctors if they are having any health issues.
- 11- Home visits should include more counselling.
- 12- Mothers' day-care facilities at work.
- 13- Strengthening the utilization of MCHN days, VHSN and VHSND days, Gram Sabha Meetings and celebration of Poshan Pakwara once in 3 month on large scale in the community.
- 14- More prompt advertisement using posters, print media, social media and other digital media platforms about the IYCF practices.

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